

**Construction Economics & Management
MSc. Report**

**RELATIVE COSTS AND BENEFITS OF
RESIDENTIAL DEVELOPMENTS IN THE CENTER
OF ATHENS**

BY

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Science in Built Environment from the University of London**



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To my parents

ABSTRACT

The last few years the center of Athens slowly but steadily is being regenerated and the restoration of historic building is a part of this process. Old structures are being turned into luxury residential developments and differentiate the existent market. The first part of this thesis deals with the evolution of residential developments in the center of Athens, from 1830's until today, and examines the trend that has emerged recently, towards the restoration of historic buildings. Furthermore, a review of the existing literature provides insight to the reasons that make such schemes profitable. The second part of this report focuses on the case study of Thission Lofts, an industrial building of 1920's that has recently been converted into luxury lofts. All the issues that emerged during, and prior to the construction process are being examined. Finally, the relative costs and benefits of new residential developments in comparison to renovated historic buildings to be used as residences are investigated and analyzed.

Key words: Athens, historic buildings, listed buildings, new residential developments, relative costs and benefits

Word Count: 10,653

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TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGMENTS.....	iv
TABLE OF CONTENTS.....	v
LIST OF FIGURES.....	vii
LIST OF TABLES.....	ix
LIST OF APPENDICES.....	x
CHAPTER 1: INTRODUCTION.....	1
1.1 Objectives of the research.....	1
1.2 Methodology.....	3
1.3 Contents.....	5
CHAPTER 2: RESIDENTIAL DEVELOPMENTS IN ATHENS.....	6
2.1 The creation of Modern Athens.....	6
2.2 The trend towards the conversion of historic buildings.....	11
CHAPTER 3: LITERATURE REVIEW.....	17
3.1 Introduction.....	17
3.2 The listing system.....	18
3.3 The importance of historic buildings to the community.....	19
3.4 The economic case of historic buildings.....	22
CHAPTER 4: Thission Lofts.....	25
4.1 Introduction.....	25
4.2 Description of the project.....	26
4.2.1 The area.....	26
4.2.2 The new development.....	28

4.3 The conversion of Thission Lofts.....	34
4.3.1 Introduction.....	34
4.3.2. Technical issues of the conversion.....	34
4.3.3 Managerial issues of the conversion.....	35
4.3.4 Architectural issues of the conversion.....	36
4.3.5 Legal issues of the conversion.....	37
4.4 Financial issues of the project.....	38
4.5 The impact of Thission Lofts to the community.....	43
4.6 Summary.....	45

CHAPTER 5: CONCLUSION AND RECCOMENDATIONS.....46

5.1 Conclusion.....	46
5.2 Recommendations.....	48

REFERENCES

APPENDICES

LIST OF FIGURES

CHAPTER 2

Figure 2.1 The map of Athens in 1810.....	6
Figure 2.2 The designs of New Athens.....	7
Figure 2.3 The map of modern Athens and the focal points of 1830's	8
Figure 2.4 Iliou Melathron.....	9
Figure 2.5 Hotel Palladion (1915).....	11
Figure 2.6 Piraeus' library 'KETI LASKARIDI.....	12
Figure 2.7 Athinais Factory (1925).....	12
Figure 2.8 The Gas Factory(1860).....	13
Figure 2.9 The map of modern Athens.....	14

CHAPTER 4

Figure 4.1 The area of Thission Lofts.....	26
Figure 4.2 The old factory.....	28
Figure 4.3 Internal courtyard concept.....	30
Figure 4.4 Inner courtyard view.....	30
Figure 4.5 Communal Space.....	31

Figure 4.6 The living suitcase.....	32
--	----

Figure 4.7 Thission Lofts.....	33
---------------------------------------	----

APPENDICES

Figure A.1 Lower ground floor.....	IX
---	----

Figure A.2 Ground floor plan (+0.00m).....	IX
---	----

Figure A.3 Ground floor plan (+3.20m).....	X
---	---

Figure A.4 First floor plan.....	X
---	---

Figure A.5 Second floor plan.....	XI
--	----

Figure A.6 Second floor plan (lofts).....	XI
--	----

Figure A.7 Third floor plan.....	XII
---	-----

Figure A.8 Third floor plan (lofts).....	XII
---	-----

Figure A.9 Prospective view of the building.....	XIII
---	------

Figure A.10 View of the building.....	XIII
--	------

Figure A.11: Elevation (Euristheos Av.).....	XIV
---	-----

Figure A.12: Elevation (Euristheos Av.).....	XIV
---	-----

LIST OF TABLES

CHAPTER 4

Table 4.1 Financial Analysis.....	40
--	-----------

LIST OF APPENDICES

Appendix I Interviews.....I

Appendix II Architectural designs and images of Thission Lofts.....IX

CHAPTER 1

INTRODUCTION

1.1 Objectives of the research

Athens is a major European city, whose great history goes back thousands of years, and set the foundations of the western civilization. It is thus, the responsibility of all Greek citizens to save and preserve the place where Socrates, Plato and Sophocles were born, its history and culture. The built heritage of Athens is a great part of its history, and consequently ought to be protected. During the last decade there has been an effort towards this direction. The center of Athens, slowly but steadily is now being regenerated and the restoration of old buildings, a phenomenon that has become a trend during the last years, is a part of this process. Historic buildings are revived, either keeping their initial function or acquiring a new one. Historic buildings from the 19th century and industrial ones from the early 20th century are being turned into residential developments and commercial centers (Kanelis, 2008).

The aim of this dissertation is to examine why such a trend has emerged the last years? Is it because people are consciously aware of the contribution of old buildings to the community? Do old buildings attract people? Do economic benefits arise with the restoration of old buildings? What are the profits that a developer can make through such projects? Is the government somehow promoting such schemes? Are there any barriers in the restoration process in comparison to the construction of a new development? What are the reasons that motivate a wealthy Athenian to move downtown to an old renovated industrial building? Are people in favour of such developments? Particularly, the research objective of this thesis is to identify the relative costs and benefits of residential developments in the center of Athens.

In order to meet the aims and objectives of this dissertation, new residential developments in the center of Athens and renovated historic buildings to be used as residences will be considered.

According to Feilden (2003, p1) "an historic building is one that gives us a sense of wonder and makes us want to know more about the people and the culture that produced it. It has architectural, aesthetic, historic, documentary, archaeological, social, economic and even political and spiritual or symbolic values ". There are also historic buildings defined as listed. So, listed buildings are historic building, which compile a distinct category. They are considered to be structures of great importance, either because of their architectural, historical or cultural value (Feilden, 2003). In Greece, the Ministry of Culture and the Ministry for Environment, Physical Planning and Public Works, are responsible to identify all buildings and structures of special interest and proclaim them as listed. Moreover, owners of historic buildings can request their property to be characterized as listed, based on the relevant law of Greek Constitution. Law protects listed buildings and their renovation involves several limitations. According to the Greek legislation system a listed building can't be demolished, and its renovation or alteration requires special permission from the local planning authority (<http://www.minenv.gr>, accessed 20 June 2008). This dissertation examines the renovation of historic buildings but focus on listed ones.

1.2 Methodology

In order to carry out an adequate and sound research, both primary and secondary data are required. Secondary data will be gathered from the existing literature, and will provide valuable findings for the relative costs and benefits of historic buildings in comparison to the construction of new residential developments. A review of the Greek legislation system and the relevant regulations will shed light to the stance of the government towards such projects. The case study of Thission Lofts, a converted industrial building of 1920's, which has now been turned into luxury lofts in the center of Athens will help us further meet the research objectives of this dissertation, and gather the primary data required. The developer of this project " Gnomon Constructions S.A." is a company with experience in the field, and therefore in order to discover the relative costs and benefits, semi-structured interviews with members of the firm will be held. It is also considered essential to interview real estate agents, who operate in the region, to find out the trends of the market. Residents and owners of commercial units in the area will also be interviewed to reveal how the community perceives different kind of residential developments. The analysis of the data collected intends to reveal issues and problems that emerge with the redevelopment of historic buildings, and listed buildings. The profitability, and the attitude of the community towards such projects will be examined.

On the whole, this report, based on the proposed methodology, endeavors to illuminate the trend that has emerged in the last decade and clarify the following research questions:

- ❖ What are the relative construction costs and revenues of new developments and listed buildings?
- ❖ Which facts and events benefit and impede the restoration of listed buildings?
- ❖ How the Greek legislation system promotes the renovation of listed structures?

- ❖ How do people perceive the contribution of renovated listed buildings to their community?
- ❖ Do renovated listed buildings enhance the historical and aesthetical aspect of modern cities?

Lastly, it should be clarified that listed buildings present differences in their redevelopment in comparison to simply historic ones. So, since the case study of Thission Lofts deals with the conversion of a listed building, the research questions posed above refer mainly to listed buildings.

1.3 Contents

This report is divided in five chapters. This chapter, the first one provides insight to the reasons, which make this topic worthwhile to examine. Moreover, it introduces the objectives of this dissertation and the research methodology that will be followed. The second chapter examines the history of residential developments in Athens and refers to the trend that has emerged the last decade towards the restoration of historic buildings. The third chapter refers to the benefits that arise with the creative reuse of historic buildings and their contribution to the community, based on the existing literature review. It also includes reasons that prevent the restoration of historic buildings, listed historic ones and make the construction of new residential developments more appealing. The fourth chapter covers the case study of Thission Lofts. It includes a detailed description of the project, problems that emerged during the development process and attempts to compare the overall profitability of new residential developments and listed historic buildings to be used as residences. The last chapter consists of a general discussion over the conducted research. It also entails recommendations for future research based on the issues that arose during this dissertation.

CHAPTER 2

RESIDENTIAL DEVELOPMENTS IN ATHENS

2.1 The creation of modern Athens

Athens is the capital of Greece, a city of great history. It was in 1834, when the King Otto transferred the capital of Greece from Nafplion to Athens, and Athens was officially nominated capital of the Greek state. Up to this period, Athens was just a village stretched around the hill of Acropolis as depicts figure 2.1 (Bastea, 2000). Mediaeval, Byzantines houses and ruins coexisted harmonically.

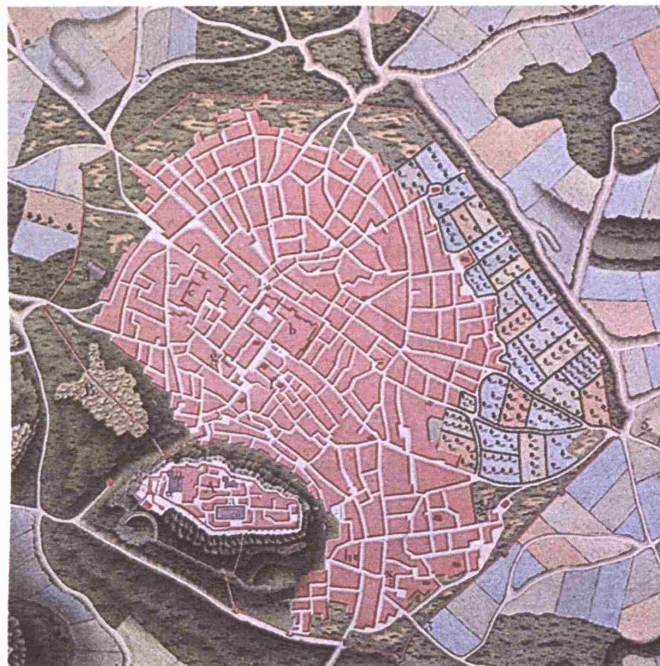


Figure 2.1: The map of Athens in 1810

(http://www.eie.gr/archaeologia/gr/chapter_more_9.aspx, accessed 22 June 2008)

The Greek government in 1834, in order to enhance the appearance of the city commissioned the Greek architect Kleanthes and the Bavarian Schaubert to design the street plan drawings for the 'new Athens' (Bastea, 2000). The city core would be Omonia Square (figure 2.2). However,

modifications and additions were made to the initial designs. The core of New Athens was changed to be Syntagma Square, where King Otto requested the construction of the royal palaces (figure 2.2,2.3) "The New Athens came to symbolize the nation's reconstruction and progress" (Bastea, 2000, p72). Influenced by the ideas of neoclassicism, Kleanthes and Schaubert embellished the designs of the city with structures and buildings that would fit to a European capital and to royal seat. In 1834 the population of Athens was 7,000. New Athens was designed for a population of 35-40,000 people. However, according to the National Statistical Service of Greece (www.statics.gr, accessed 25 June 2008), at the end of the century the population of the capital reached the 130,000.

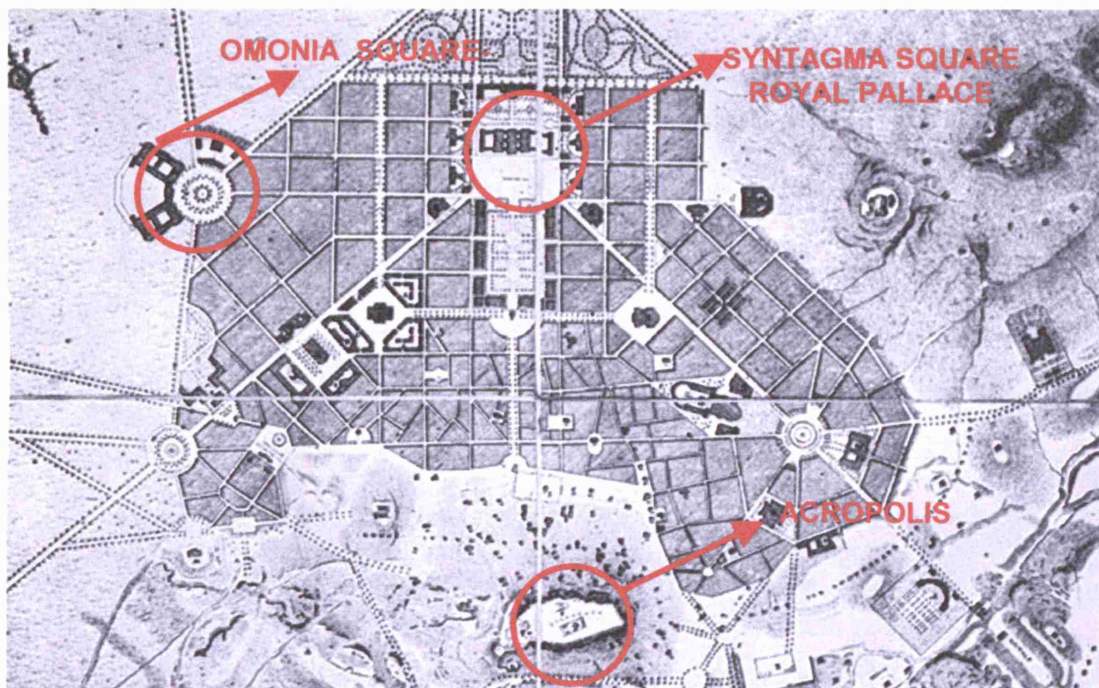


Figure 2.2: The designs of New Athens

(http://www.eie.gr/archaeologia/gr/chapter_more_9.aspx, accessed 22 June 2008)

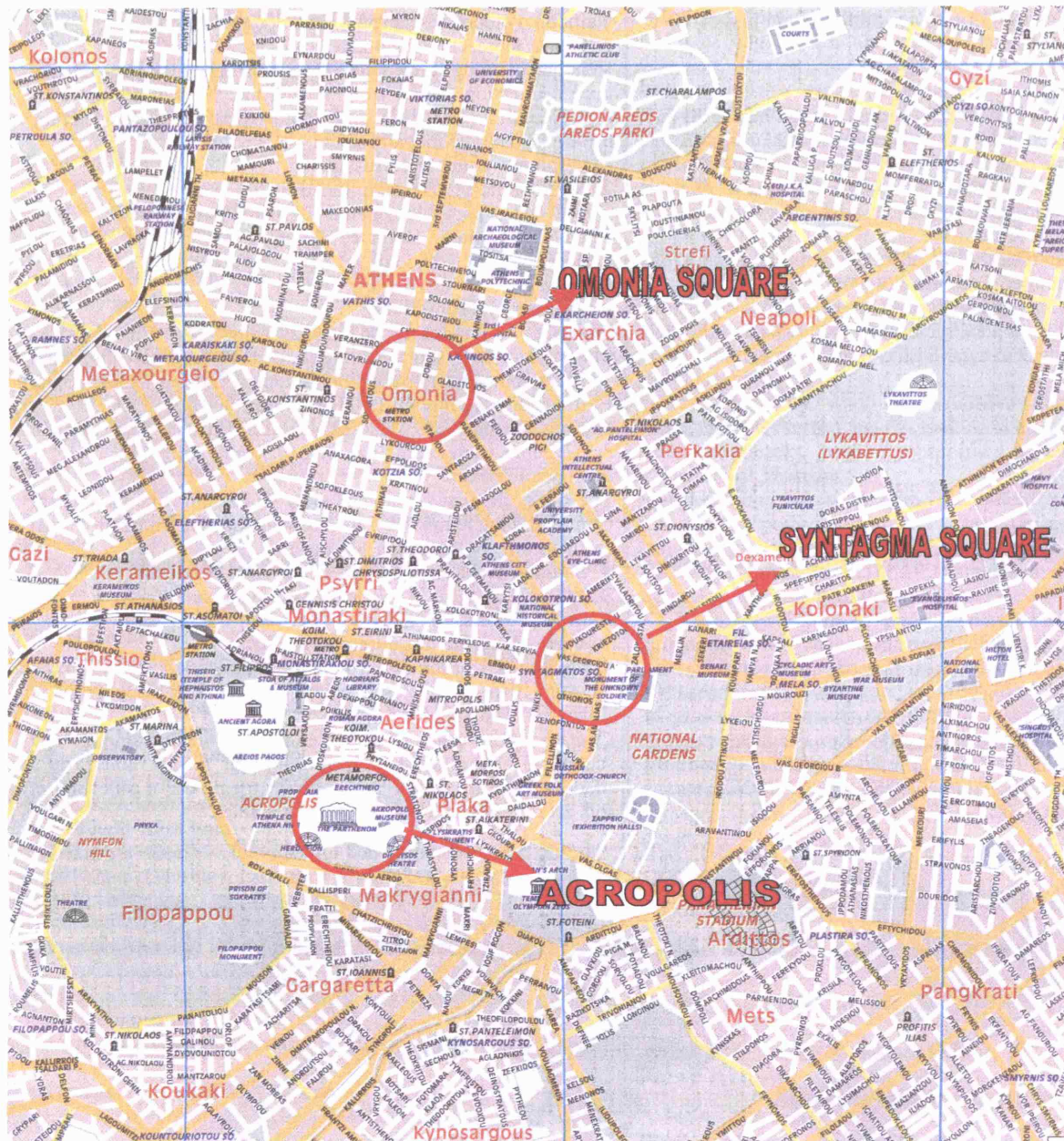


Figure 2.3: The map of modern Athens and the focal points of 1830's
 (<http://www.athensguide.com/map/athens.htm>, accessed 22 June 2008)

In the centre of Athens, there were administrative, economic and educational institutions. Buildings of architectural significance were used as focal points. There were also residences and centres of recreation for the upper class (Bastea, 2000). The middle and lower class were living in areas more distant from the centre. During that era a typical house in the centre of Athens, would be a two or three storey building. There were simple houses but there were also big mansions. All neoclassical houses had a distinct architectural value. They had statues of Greek gods in the front and other

objects of great historical and architectural value. Figure 2.4 depicts one of the most famous buildings of this era, Iliou Melathron.

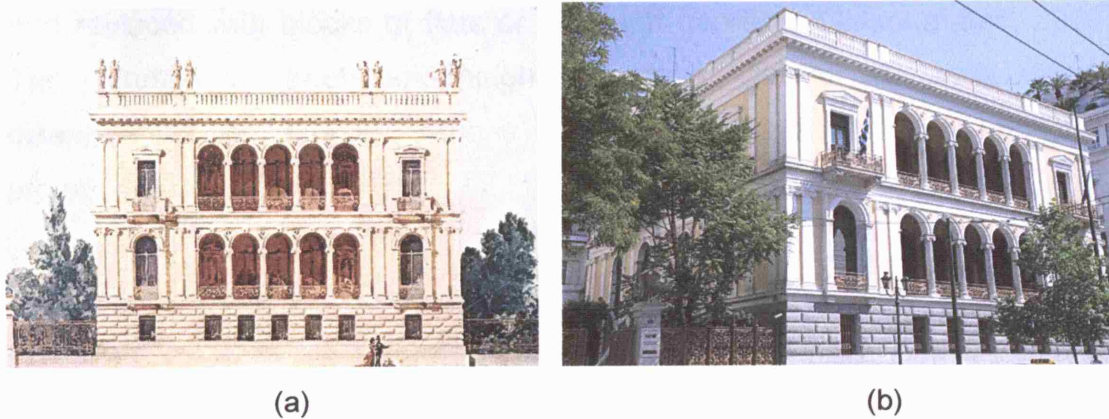


Figure 2.4: Iliou Melathron

(a) The original design of the building, (b) Iliou Melathron as it appears today
(<http://www.eie.gr/archaeologia/gr/layout/images/09/zoom/LEO34.jpg>, accessed 22 June 2008)

On 9th September of 1922 the Turkish army invade in Smyrni and occupied the Greek territory. More than 50,000 Greek-Cypriots passed away, and more than 1,500,000 people were expelled and moved in Greece (OEDB, 2004). Hence, at the beginning of the 20th century, due to the Asia Minor Catastrophe 125,000 refugees migrated in Athens. As a result, refugees' settlements were created, around the centre of Athens, to lodge all these people. Moreover, due to the fact that Athens was the capital of Greece, it attracted numerous people, that were moving to the city, seeking better jobs and living conditions. The first modern blocks of flats were built during the Mid-War (1923-1940). During the 50's and 60's innumerable historic buildings were demolished, and large blocks of flats took their place (OEDB, 2004). Unfortunately, during this era our history and built heritage were mistreated. This is how Athens day by day radically changed and became like many other big European cities. According to the last census of 2001(www.statics.gr, accessed 25 June 2008) the total population of Greece was 10,964,020, and the population of the Athens, including its suburbs, was 3,761,810.

Being the biggest business and commercial center of the country, with more than 750,000 citizens living downtown, the neighbourhood of the most

well known philosophers in the world, like Socrates and Plato, was largely destroyed. Historic buildings at the center of Athens were either demolished and replaced with blocks of flats or were left derelict (Giakoumatos, 2003). The picturesque streets and neighborhoods of Old Athens were steadily disappearing. As a result, Athens lost its glory, and the living conditions provided were deteriorated.

Until recently, it was mainly people that didn't have the financial potentials to move somewhere else that continued to live in the center of Athens, only with few exceptions. The blocks of flats that were built after Mid-war, housed mainly migrants and people with low incomes. Any new residential developments of that era were designed without reference to the historic importance and potential value of the area. Before this period, living in the center of Athens, was a privilege of prosperous Athenians. However, as years went by the center of Athens became overcrowded and lost its natural beauty and historic value. Therefore, well-off people moved from the center of Athens in the suburbs. While, the values of flats in the center of Athens were falling down, the prices of houses and apartments in the South and North suburbs of Athens were launched at exceptionally high levels.

2.2 The trend towards the conversion of historic buildings

The decay of Old Athens is a fact that can't be changed. However, the last decade there seems to be optimism for the future. The center of Athens is being regenerated and slowly but steadily seems to recover its lost value (Kuritsi, 2007). The restoration of old buildings in the center of Athens seems to contribute towards this direction. Historic and redundant industrial buildings from the 1920's are being refurbished and restored respectively. Contemporary and old architectural styles and trends are creatively meshed in order to maintain evidence of the past. There has always been some tendency towards the refurbishment of historic buildings, in order to enhance the appearance of the city. These days instead, there is mainly a trend towards the conversion of obsolete industrial buildings into residential developments, in areas that were considered to be downgraded (Belavilas, 2002). The images below depict old industrial and neoclassical buildings before and after their renovation.



(a)



(b)

Figure 2.5: Hotel Palladion (1915)

(a) The old structure prior to its renovation, (b) The contemporary view of the hotel (http://www.eie.gr/archaeologia/gr/arxeio_more.aspx?id=196, accessed 10 July 2008)



Figure 2.6: Piraeus' library 'KETI LASKARIDI'

(a) The old structure prior to its renovation, (b) The library as it appears today
(<http://estia.minenv.gr/EXEC>, accessed 10 July 2008)

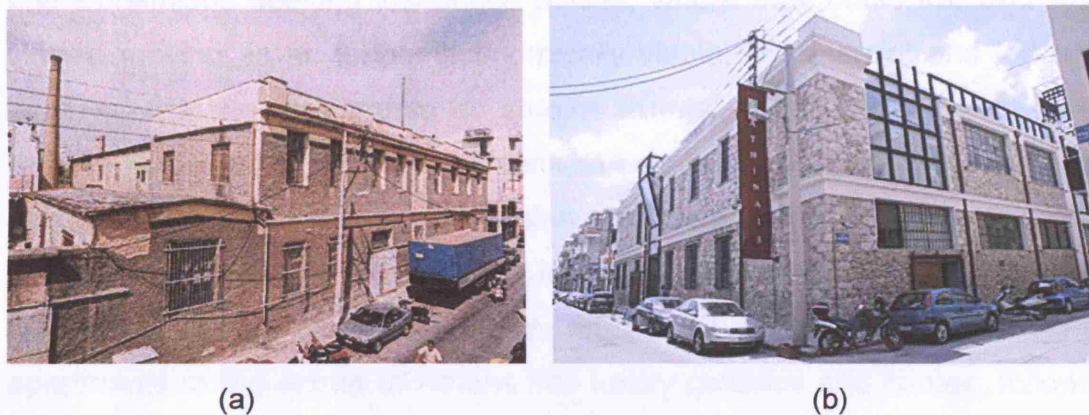


Figure 2.7: Athinais Factory (1925)

(a) The old factory prior to its conversion, (b) The new mixed use development
(http://www.eie.gr/archaeologia/gr/arxeio_more.aspx?id=145, accessed 10 July 2008)



Figure 2.8: The Gas Factory (1860)

(a) The factory prior to its conversion, (b) The new development 'Technopolis'
 (http://www.eie.gr/archaeologia/gr/arxeio_more.aspx?id=216, accessed 10 July 2008)

The trend that has emerged recently in Athens goes back some decades ago elsewhere. In the 1950's old industrial buildings with high ceilings, in Manhattan, were mainly being used to lodge art galleries. Artists and Bohemians seeking low-priced places, where they could live and work, started moving, in no longer economically viable, commercial and industrial buildings that were adequate as studios (Kuritsi, 2007). As industries were moving out of town in more economical areas, artists were able to imitate inexpensively a new version of Parisian ateliers of the 19th century. According to Zeukili (2008) artists like Jasper Johns and Andy Warhol set a trend that fifty years later in Athens, architects, artists and others imitated, turning old apartments in the center of Athens into luxury galleries and homes, following Manhattan's trends.

In Greece the trend first appeared in the 1990's (Kuritsi, 2007) when famous Greek architects and artists turned old apartments in the center of Athens, into luxurious lofts. Gradually, this trend is being spread more widely. Old industrial buildings in the center of Athens are being turned into luxury residential developments, with concierge, parking and inside gyms. Well-off Athenians are moving from suburbs to lofts downtown, choosing a different lifestyle.

Such projects, in the centre of Athens, are being developed in the areas of Metaxourgio, Keramikos, Gazi and Psiri where large regeneration schemes are taking place (figure 2.9).



Figure 2. 9: The map of modern Athens

(<http://www.athensguide.com/map/athens.htm>, accessed 22 June 2008)

All these regions until recently were considered to be extremely downgraded. Industries, manufactures and warehouses were dominating the areas, until the intense, local and international, competition obliged some of them to close down (Kuritsi, 2007). Moreover, many industries were imposed

to move away from the city center because of environmental purposes imposed by authorities. Therefore, numerous old industrial buildings were left redundant for several decades. None could ever imagine the evolution of these areas ten years ago. The changes that emerged were gradual. At first, artistic and cultural events were launched at Gazi, Psyrri and Keramikos, feeding people's interest for these areas (Zeukili, 2008). The upgrade continued with the renovation of Benaki Museum and the creation of Technopolis, a major cultural center and museum. Afterwards, slowly but steadily the nightlife of the city "moved" there as well. Numerous restaurants, bars and cafes opened. The extension of the underground promoted also Gazi and Keramikos that today have become focal points, the hotspots of the city. These areas are blooming and a vicious cycle has been created. The regeneration of the wider area impels developers to undertake the renovation of old developments into luxury developments, and the creative reuse of historic buildings adds value to the area respectively. The result is the emergence of several luxurious residential developments of loft style apartments mainly, which consist a new model of living for modern Athenians.

According to Zeukili (2008), lofts are apartments transformed by into formerly industrial buildings, warehouses and offices. Lofts are largely deprived of partition. They usually have one great floor plan, high ceilings and large windows. Wood and steel are combined harmonically, whereas the minimal and industrial design prevails, with characteristics that reveal the previous use of the building, like exposed pipes, ducts in the ceiling, metal stairs and handrails. "Soft lofts", are lofts with more careful finishings, white walls and slightly separated. Lofts consist a new model of living for Athenians. It isn't just a different type of housing, but it consists a different style of living, and the truth is that the Athenians are not keen enough with this new proposal. Lofts might be ideal for couples and singles but their nature doesn't fit much to the needs of a traditional Greek family (Kuritsi, 2007). However, there are numerous prosperous couples and singles keen with this new lifestyle. Therefore, the prices of these modern developments have been launched at high levels, often exceeding 4,000€/m², whereas in good areas in the suburbs, prices of modern developments range from 3,200-3,500 €/m².

Afterall, there is evidence that old buildings have generated popular appeal the last years. The question is why does this happen? Is it just a trend that developers take advantage of, in order to make huge profits? Does this phenomenon keep pace with the regeneration schemes that take place in the centre of Athens? Is it because people are consciously aware of the advantages of retaining them, and can see the benefits of old architecture to their community? Or do they just feel comfortable with the familiar? Perhaps there is a more comprehensive answer.

CHAPTER 3

LITERATURE REVIEW

3.1 Introduction

“ Our built heritage represents the very best of our past” (English Heritage, n.d). Old buildings consist valuable historical resources that depict the history of a place and their renovation enables the promotion of regeneration schemes. Dr Derek Latham (Latham, 2000), who specializes in the restoration of listed buildings, considers creative reuse as the best way forward. The renovation of listed buildings promotes the spirit of reviving old cities and civilizations, enabling simultaneously architectural heritage to survive. In fact, the preservation and the creative reuse of listed buildings adds value to the social, architectural, historical and aesthetic character of a city, making what is more an important contribution to the local economy. On the whole, based on the existing literature, there is evidence that listed buildings consist a catalyst for the regeneration of a wider area, while they reinforce and enhance the historical and aesthetical character of it. Economic issues and environmental benefits arise as well with the reuse of listed buildings. This chapter will examine further the benefits and drawbacks that impel people to, and prevent them from, the renovation of listed buildings

3.2 The listing system

Being aware of the multiple importances of historic buildings, many governments all over the world enact legislations to prevent historic structures from decay. According to the Greek Constitution all historic buildings that date prior to 1830 are defined as listed. Moreover the proprietary rights of historic structures built prior to 1453 belong exclusively to the Greek State. Buildings erected after 1830 in order to be defined as listed have to be of great architectural, social, and historic value (<http://www.minenv.gr>, accessed 10 August 2008). The Ministry of Culture and the Ministry for Environment, Physical Planning and Public Works, are responsible to identify all buildings and structures of special interest and proclaim them as listed. Moreover, owners of historic buildings can request their property to be characterized as listed, based on the relevant law of Greek Constitution. Each listed building is subject to a specific decree. Decrees usually refer to a group of listed buildings and the relevant regulations that regard their maintenance and redevelopment. When listing occurs any modification is prohibited at the frame of the structure, and any inside alterations require special planning permission. A listed building can be demolished only if it is of extremely poor condition. Authorities in order to promote the redevelopment of listed buildings provide incentives to their owners. The motivations offered by the Greek State for such projects are listed below (www.minenv.gr, and Stamatiou, (2008)):

- ❖ Long-term and low interest rated loans up to 100,000€
- ❖ Up to 20% reduction in inheritance taxes
- ❖ Financial support for the redevelopment of listed buildings in some cases
- ❖ Retain of the plot ratio of their previous use
- ❖ Individual regulations for each structure.

3.3 The importance of historic buildings to the community

According to Feilden (2003, p1) “a historic building from the first act of its creation, through its long life to present day, encloses artistic and human ‘messages’” that refer to the era the building was erected, the location, the purpose and the importance of it. Gratziou (2004) claims that buildings are just like human beings. They have needs in order to survive. They need to be well maintained in order to be viable, continue to serve their function, and reveal their importance. Conversely, the architectural, aesthetic, social, archaeological, economic and historic value of a building becomes less apparent without protection, as time goes by. Moreover, “competing demands for land use, changes in the nature of local economies and the continued consumption of historic assets” according to Strange (1997,p227) threatens the characteristics of historic areas, and of the built environment. Lastly, because of the speed and the nature of modern urbanization, there is also little space left for tradition, and history to be preserved. Only few buildings today are designed with reference to, and respect for their location.

Renovating a listed building, either keeping or changing its original concept and function, enables the value and importance of it to be revealed. The regeneration of a single or a group of historic buildings is a way to revive the history and culture of an area, enhance its appearance, boost the well-being of the local community and create focal points at once (English Heritage, n.d). On the other hand, the disappearance of heritage buildings hastens the loss of the historic, aesthetic and social character of a place (House of Commons, 2003). Therefore, the importance of renovation is vital for the local character of an area to be maintained.

Subsequently, governments all over the world, being aware of the contribution of historic buildings to their community, enact legislations for the preservation of historic buildings. As, freestanding historic areas find difficulties in keeping their historic features unaltered (Strange, 1997) policymakers provide a number of incentives in order to motivate the creative

maintenance and reuse of historic buildings. On the whole, authorities rally around historic buildings that are considered to be important landmarks to prevent them from decay, supporting and financing efforts with intention to preserve them.

Furthermore, there is also evidence that the creative reuse of historic buildings provides sound foundations for regeneration schemes to be initiated (House of Commons, 2003). Historic buildings “create focal points that people can relate to and be familiar with” (House of Commons, 2003, p1). Their historic and cultural importance feeds people’s interest for specific areas, making regeneration schemes profitable. According to Latham (2000), the general appeal of our built heritage creates opportunities for tourism and inward economic investments. Therefore, the interest and concern of community for historic buildings accelerate the pace of a wider urban “renaissance”, and the increased speed of regeneration dictates respectively, the need for listed buildings to be preserved, meeting contemporary demands. Governments also promote the conversion of historic buildings to enable such schemes to set off.

Moreover, according to the English Institute of Historic Building Conservation “historic buildings provide the context for creative, high quality contemporary design in new development” (House of Commons, 2003, p7). Urban renaissance requires a proper combination of historic environment with good urban design. Keeping the best of an old structure and using high quality materials and design promotes sustainable development. Conversely, modern urbanization that ignores the past often fails to provide a successful urban environment, being mono-cultural and lifeless (English Heritage, n.d).

Lastly, the environmental benefits that derive from the renovation of historic buildings are remarkable, and should impel the community towards this direction. There is evidence that the reuse of old structures consists a more environmentally friendly proposal, in contrast to the erection of new developments. The demolition of old buildings and the construction of new developments require the use of extra material and energy resources.

According to Simon Thurtley, the chief executive of English Heritage “the waste that is being generated by the construction and demolition of buildings is 24 per cent of all waste”(English Heritage, 2004). Old buildings retain their “embodied energy”, the energy that was consumed by all range of activities during the construction process (Kerr, 2004), when they are being reused. In addition, the embodied energy costs of new developments are much higher than those required for the renovation of old buildings. Therefore, old buildings even if they do not use energy efficient design and materials, they have significant environmental performance, promoting sustainable development.

3.4 The economic case of historic buildings

The economic issues that arise with the renovation of historic buildings affect both individuals and the whole society. Initially, as it has already been discussed above, historic buildings provide appealing architectural features to an area, while they enhance its appearance and boost its local character. The retention of a group of historic, listed mainly, buildings and the creative reuse of them, feeds the interest of people for an area, and the local economy is being regenerated. Galleries, museums, bars, restaurants and shops open and the local economy is blooming. So the creative reuse of historic buildings stimulates the economic regeneration of a wider area. Our built heritage becomes the basis for generating economic growth, attracting tourism and investments (Strange, 1997). This is how the ingenious reuse of historic buildings provides economic benefits to the community.

In addition to the benefits that community derives from the restoration of historic buildings, individuals also gain profits from such projects. As it has already been mentioned, the purpose of listing is “to impose a constraint on the behaviour of the owners of a building ”(Brandon et al, 1997, p276), in order to preserve its historic features. Planners are generally authorized either to list a single building, or a group of buildings with special historic interest, imposing restrictions to their redevelopment. But, listing a group of historic buildings stimulates the creation of a conservation area. Conservation areas as mentioned above, generate popular appeal, and enhance the local economy. As a result, property values are increased because of the attractiveness of the area and the facilities provided.

Indeed, the renovation of listed buildings generally involves a significant level of limitations. Moreover, once listed buildings are no more economically viable they are all too frequently considered as constraints to the redevelopment process of an area (English Heritage, n.d). However, the reuse of listed buildings in conservation areas consists an investment of increased security both for individuals and developers (Brandon et al., 1997). In many

cases according to Brandon et al. (1997), residents have promoted the designation of their area as a conservation area, being aware of the profits they can make.

Conversely, it is difficult especially, for an individual to undertake the redevelopment of a listed building in a non-conservation area, where the profitability of such projects is more limited. In such cases, the limitations and the barriers involved often prevent individuals from carrying out renovations, because of increased risk (Brandon et al., 1997). The reuse of listed buildings requires special permission from planning authorities, and in several cases, there is also no possibility for changes. Moreover, the viability of a building affects to a great extent the renovation process. The stage in the life cycle of the building when the redevelopment occurs and the previous function of it, are the main factors that determine construction costs. Listed buildings of poor condition present numerous problems that delay their redevelopment and augment the budget of the project. Generally, it is considered that the overall construction costs of restoration exceed the costs required for the construction of a new residential development. On the whole, the fear of individuals to undertake projects with high uncertainty and low profit margins, prevent them from restoring listed buildings in non-conservation areas. In such cases, the maintenance and reuse of listed buildings may bring benefits for the wider community, but significant costs for the owners.

As it was discussed previously, many owners of listed buildings choose not to move on with the renovation of their properties, in fear of the problems that might come up and the increased cost of renovation. But, buildings that fall out of use, downgrade an area, deteriorate its environmental quality, invite crime, and enable the historic, architectural and social of it to disappear. Policymakers and planners, being aware of the overall contribution of historic buildings to the community, give incentives to motivate the conservation of the built environment.

Stamatiou (2008) has carried out a research about the policy followed by all modern countries in the field of listed buildings, such as UK, France,

Germany, Spain, USA, and Scandinavian nations. After analysing the data collected, she found evidence that most countries in order to motivate the creative reuse of listed buildings sponsor, up to a certain extent, such projects. Moreover, governments provide tax credits, loans with low interests and enable special modifications. The most important privilege that is being provided is the fact that listed buildings can retain their plot ratio. This latter fact makes the reuse of listed buildings highly profitable.

Lastly, what should be taken into consideration is the fact that residents perceive historic buildings to add value to their living standards. In contrast to modern standardized residential developments, historic buildings benefit from high ceilings, large windows, large rooms and unique design that even the most luxury residential developments do not provide today. The historic and architectural character of an old structure also adds to its prestige and increases its market value. In many cases, there is evidence that historic, and particularly listed, buildings used as residences, command higher prices and rents than new comparable residential developments (English Heritage, n.d.). There are numerous buyers and tenants willing to pay more in order to enjoy the sense and the uniqueness that converted historic buildings offer. Whether it is a trend or that people are consciously aware of the benefits that derive from the inspired and sustainable reuse of historic buildings, the outcome is the same; the demand for historic buildings drive up property values. As a result developers are impelled to seek for such opportunities, whereas individuals consider reusing their properties and value them as beneficial investments.

CHAPTER 4

THISSION LOFTS

4.1 Introduction

This chapter examines the conversion of an industrial listed building in the center of Athens. The old factory of 1923 has now been turned into a luxury residential development of modern lofts. The case study is mainly based on information provided by the developer company of the project, Gnomon Constructions and IF[Untitled] Architects, who participated in the design team. Interviews and discussions with the participants of the project were carried out to reveal problems and issues that concern the reconstruction of a listed building, and this one's particular.

This chapter also endeavors to shed light on the relative costs and benefits of renovated listed buildings and new developments. However, this evaluation involves several limitations. First of all, Thission Lofts, is a project that hasn't been completed yet. Therefore, all financial data listed below are provisional and based on estimations. Moreover, as it will be explained later on, it is difficult to make an accurate comparison between a renovated listed building and a new residential development of the same size, standards and in the same area. Therefore, the comparative analysis will be based on the knowledge and experience of people expert in the field. This chapter also attempts to reveal how people perceive the contribution of new and old renovated developments to their community.

4.2 Description of the project

4.2.1 The area

Thission Lofts is a listed industrial building at Pireos Avenue as depicted in figure 4.1 at the core of a rapidly evolving area, Gazi, which has become the cultural and artistic hub of Athens (www.thissionlofts.gr, accessed 9 August 2008). The history of that area goes back many decades. When Athens in 1834 was officially nominated as the capital of Greek state, the government commissioned the architects Schaubert and Kleanthes, as mentioned in chapter 2, to make the designs of new Athens. Pireos Avenue was defined to be the road that would connect Athens municipality with Piraeus, the largest port of the country. It was one of the main three-road axes of New Athens.



Figure 4.1: The area of Thission Lofts

(<http://www.athensguide.com/map/athens.htm>, accesses 22 June 2008)

According to the initial designs numerous administrative and royal buildings would be erected along Pireos Avenue (Belavilas,2002). Hence, there would be connections among the parliament, the palace, the stock exchange, churches, and other educational and administrative institutions from Omonia Square to the port.

Unfortunately, none of these buildings of administrative importance and palaces that were supposed to be constructed was ever erected. Close to Omonia square, numerous neoclassic buildings were raised, yet today only few of them have survived. Conversely, industries, manufactures, warehouses and refugees' settlements dominated the whole area from Omonia Square to the port. Because of the activities that were taking place, the wider area of Gazi was polluted and downgraded.

At the moment, after a general effort of the authorities to upgrade the area, Gazi is the focal point of the city and the hotspot of Athenian nightlife (Rigopoulos, 2008). However, the area doesn't provide its visitors only bars, cafes and restaurants. It offers a new style of urban living. The artistic and architectural character of the area has been promoted, while new models of residences emerge. All major investments in the area mainly regard residential developments under construction. This is evidently, a result of the fact that the municipality of Athens and the in charge planning authorities defined around the area of Gazi, a residential region of many building blocks (Rigopoulos, 2008).

Currently, numerous developers operate in the area, either converting old historic buildings into modern residential units, or building new ones. Loft style apartments have a significant share in the boosted market. Many of the new residential developments also differ from conventional ones (Kuritsi, 2007), presenting elements of industrial design. What could be inferred is that a tendency to enhance the architectural mixture prevails in the area.

Lastly, the regeneration of the area has increased the demand for residences and prices have been launched at exceptionally high levels.

Especially where lofts are concerned, according to real estate agents, prices are extremely high. Even if the initial idea of lofts was to provide large spaces at low cost, the contemporary version of lofts that has emerged in the area is affordable only for prosperous Athenians.

4.2.2 The new development

Thission Lofts is a listed industrial building of 1920's that was initially used as a factory but left redundant for many decades, like most industrial buildings in the area. Lacking maintenance, the building fell out of use and lost its historical and architectural value. Before being renovated, it looked like a relic of a bygone age (figure 4.2). It wasn't until one of the architects of the project spotted the place that came up with the idea of converting it into luxury lofts. Meeting loft requirements, high ceilings, large spaces and windows, the old factory was ideal for being converted. Gnomon Constructions S.A., acknowledging the potentials of the building, bought it in 2004, despite its poor condition, in order to create modern apartments of loft style.



Figure 4.2: The old factory

(<http://www.ThissionLofts.gr>, accessed 12 August 2008)

Even if at the moment many similar projects are under construction in the area, Thission Lofts is the first Loft conversion project in Greece (www.if-untitled.com, accessed 14 August 2008). It introduces 19 lofts of 80m² to 230m², one multipurpose room of 718m² and 3 commercial units (239 m², 144

m², and 83 m²). There is also an inner courtyard, a fitness center, and an underground parking designed for 20 cars. Floor plans, elevations and other images of the building are available at appendices.

According to the design team, their main intention was to create a building that would promote human relationships and collective activities. So they “decided to ‘implant’ several small design interventions that could be discovered and be facilitated by the residents for these fleeting moments of social exchange” (<http://www.if-untitled.com/Archdesign01.html>, accessed 12 August 2008). If this could be achieved the regeneration of the building would turn the old development into a living being.

Indeed, the four storey central internal courtyard (figure 4.3) enables social interaction among neighbors, as residents of the building have stated. It provides access to all 19 lofts, commercial units and the multipurpose room, but only to the residents of the building. “All lofts surround and overlook the communal courtyard with its vertical garden and seating areas that are accessed over the open balconies in order to create a permeable transition between the private living spaces and the communal areas” (<http://www.if-untitled.com/Archdesign01.html>, accessed 10 August 2008). Figures, 4.3, 4.4, 4.5 depict the concept of the inner courtyard and different views of it.



Figure 4.3: Internal courtyard concept

(<http://www.if-untitled.com/Archdesign01.html>, accessed 5 August 2008)



Figure4.4: Inner courtyard view

(<http://www.if-untitled.com/Archde-sign01.html>, accessed 5 August 2008)



Figure4.5: Communal space

(<http://www.if-untitled.com/Archde-sign01.html>, accessed 5 August 2008)

As far as the nineteen lofts are concerned, they are all different in size. Moreover, each loft has been designed separately because of the non-uniformity of the structure. The design team successfully and creatively

overcame the problems emerged, because of the former use of the building, and the limitations involved with its conversion. Hence, each loft in reference to its design has special characteristics that promote its uniqueness. For instance, because of the high ceilings of the building, some lofts are two-storey, whereas other lofts have inner balconies.

The building design of Thission Lofts is contemporary and stands out from other similar developments. It's not a typical block of flats with high ceilings and modern architecture. It's a new development with clear reference to its former use, and contemporary design that reveals the historical and architectural importance of it. The desire of the design team, was also to "introduce a contemporary design of urban living in Athens" (<http://www.if-untitled.com/Archdesign01.html>, accessed 14 August 2008) inspired, by the hidden beauty of the building and its high ceilings. Additionally, in order to trace the industrial style of a typical loft, they used the same base for each residential unit, the 'suitcase structure'. The 'suitcase structure' (figure 4.6) "gathers all necessary utility spaces into a single pod and leaves the remaining spaces untouched. The 'suitcase' installation is a focused insertion that can be adapted to suit each individual loft whilst retaining its compact and transitional character" (<http://www.if-untitled.com/Archdesign01.html>, accessed 14 August 2008). So, each loft has its own 'suitcase', where the kitchen, the bathroom and wardrobes, are all built into. Therefore, even the small lofts of 80m² are quite spacious, while the 'suitcase' consists a unique element of contemporary architecture and promotes the industrial design.



Figure 4.6: The living suitcase

(<http://www.if-untitled.com/Archdesign01.html>, accessed 5 August 2008)

However, it is more appropriate to describe Thission Lofts as a development of 'soft lofts'. While the industrial style prevails, there are careful finishings, white walls, and lofts are slightly separated. Therefore, there are lofts that could accommodate singles and couples, but there are also lofts suitable for more people.

Thission Lofts is equivalent to contemporary residential developments providing numerous facilities. Precisely, each residential unit benefits from alarm system, satellite TV, natural gas, independent heating, climate system - A/C, and fire radiator. Apart from these facilities that apply to each loft individually, the common facilities of the building are: parking, fitness center, storage room, and concierge.

Lastly, what should be mentioned is that the renovation of the old factory has revealed the architectural and historical value of the building. The inner courtyard reminds a typical Athenian residential development of old times. The concierge is also an element that jogs our memory some decades ago, to the Athenians' blocks of flats of 50's and 60's. Additionally, because of the limitations involved, there are no alterations to the frame of the building and the inner space of it. Even the windows are painted the colour they used

to be. Meshing old architecture with contemporary design the developer company and the design team managed to revive the history of the building, enhancing its appearance and meeting the modern demands of residential developments. The image below depicts the building as it appears today.



Figure 4.7: Thission Lofts

4.3 The conversion of Thission Lofts

4.3.1 Introduction

The conversion of a listed building differs significantly from the construction of a new development. Reusing a listed development involves additional issues to be considered, prior to, and during the renovation process. Such schemes involve great level of uncertainty. Problems not predicted, emerge during the construction process, and the whole project is at risk. The renovation of Thission Lofts was a challenge for the design team and the engineers. They had to overcome problems that do not show up in conventional constructions. This section examines the technical, architectural and others issues that emerged during the construction process.

4.3.2 Technical issues of the conversion

Before acquiring the old factory, research was made to inspect the structural viability of the building. It was obvious that it had to be reinforced, and both onsite research and desk studies were required. Based on the stability check, the whole load bearing structure had to be reinforced. According to the civil engineer of the project, the columns, the beams and the slabs of the building were in extremely poor condition. Special engineers, expert in conversions, were commissioned for the structural design of the building. Because of the nature of the project, the design analysis was more complex, expensive and time-consuming than it would be the structural design of a new development. Apart from the subsoil and foundations conditions that had to be improved, there was also need both for concrete repair, and increase in load capacity. Numerous techniques were applied to increase the structural capacity of the whole structure. Structural repairs, structural bonding, concrete injections, grouting, increase in the geometry of beams, and steel plate bonding, are the main methods that were used. The whole procedure was rather complex. Problems that hadn't been predicted were raised. The rate of reinforcement that was initially estimated had to be

increased. Therefore, the progress of the project was delayed almost one year and the budget of the project had to be increased. According to the engineers of the project, if that building had to be erected again from scratch, it would cost less, and it would require less time. However, the life span of the renovated listed building is the same as it would be that of a new development meeting the requirements of the Greek Seismic Regulation of 2000.

Evidently, during the renovation process, there was also need to upgrade the building services. Electrical, lighting and heating installations, ventilation and air-conditioning, had to be designed to meet the standards of all contemporary residential developments. However, once more, this task was more intricate than it would be for the construction of a new development, according to the engineers of the project. Uniformity in the design prevails in newly built developments, favoring the design of building services. Conversely, the old structure had no elements of uniformity. Moreover, it was quite troublesome to find the right place and design the appropriate installations for the elevator that didn't exist.

On the whole, the redevelopment of Thission Lofts was rather a tricky and problematic project, in contrast to the construction of a new residential development. The reinforcement of the structure and the lack of uniformity in designs, were the main factors that burdened the conversion of the old building and have delayed significantly its completion.

4.3.3 Managerial issues of the conversion

Based on the interview that was carried out with the project manager of Thission Lofts, the co-ordination of all the activities of the construction process was quite complex. Because of the nature of the project, many crews had to work together and this was quite complicated and confusing. There was no order in the construction activities and the lack of space was hindering the progress of the project. Due to fact that the premises were already configured, it was difficult for the erection gangs to work efficiently. This fact also disabled

the passage of the vehicles that were used. It wasn't possible for bulldozers to enter the building. Therefore, the excavations and the reinforcement of the building were proven quite troublesome tasks. Moreover, the central location of Thission Lofts consisted also a barrier that had to be overcome. Many of the construction activities that took place required the closure of the adjacent roads. Lastly, all the elements of the buildings are not like the typical ones that are being used today in contemporary developments. All windows and doors required special order, a fact that delayed the progress of the redevelopment. Overall, based on the information provided by the project manager, the nature of the project burdened the co-ordination of construction activities. Conversely, in a conventional development there is a typical procedure that is followed.

4.3.4 Architectural issues of the conversion

The conversion of the old factory into luxury lofts was a challenge for the design team. Based on the interview that was carried out with one of the architects of the project, changing the function of the building emerged many issues that had to be worked out. It was also the nature of the building that created problems. More precisely, because of the limitations involved in the renovation of a listed building, it was impossible for any modifications to be made at the frame of the structure. For instance, there were some lofts less bright and airy, but due to the relevant regulations, the architects didn't have the option to enlarge the windows. Therefore, the design team had to find smart solutions to overcome such problems. The non-uniformity of the building was another factor that impeded the architectural design, conversely to the majority of newly built residential developments, which are designed with uniformity in order to reduce construction costs. Overall, the architectural designs of Thission Lofts required more time and effort than it would require the designs of a new residential development.

On the other hand, the architects exploited the previous use of the building to create spacious lofts with high ceilings. Indeed, there are lofts, the

ceiling of which exceeds 5.5m. Moreover, even if the limitations involved with the conversion of the building created some problems to the design team, they promoted the uniqueness of each loft at once. Furthermore, these limitations also enabled the building to retrieve its historical and architectural value. On the whole, despite the problems that emerged, the 19 lofts that were created stand out in comparison to any new residential developments. At the moment, it is impossible to find residential units with so high ceilings and such large rooms. Moreover, modern architecture has been very creatively and successfully combined with the old structure, promoting the historic importance of the building. Thission lofts, in contrary to the majority of contemporary developments, consists a “living being” that promotes social interactions. Afterall, Thission Lofts has been sustainably developed “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland report, 1987, http://3mfuture.org/sustainability/definition_sustainable_development.htm)

4.3.5 Legal issues of the conversion

The nature of the structure imposed limitations both at the structural and architectural designs of Thission Lofts. However, due to the fact that planning authorities favour such projects, planning permission was easily provided with no delays. Apart from the restrictions mentioned to the relevant decree, no other legal issues were faced. Conversely, financial benefits derived because of the nature of the project. When the closure of adjacent road was required, the price that had to be paid in order to get the permission was lower than it would be for the construction of a new development.

4.4 Financial issues of the project

The decision of Gnomon Constructions S.A. to undertake the conversion of the old factory into luxurious lofts was mainly based on financial criteria according to the board members of the company. The first incentive for this decision was the price of the building. Taking into consideration that listed buildings retain the plot ratio of their previous use, the asking price for the building was satisfactory. At present, the plot ratio of new developments is much lower than the equivalent of old structures, encouraging the redevelopment of old buildings. Moreover, the location of the building is quite advantageous. It is located along the busy Pireos Avenue, at the core of a fast evolving area. It was after all, the combination of its price and location that motivated Gnomon Constructions S.A. to undertake the conversion of the old factory.

The redevelopment of the building, as has already been mentioned, was quite complex. Each loft was designed separately because of the non uniformity of the existent structure. Expert engineers on the field were commissioned for the structural design of the building. The reinforcement of the existent structure delayed the project almost one year. During the construction process, unexpected problems emerged. Many crews had to work at the same time, and therefore the co-ordination of all construction activities was difficult to be handled. The nature of the project increased constructions costs and the interests that had to be paid because of the delay. Based on estimations, the overall construction costs were 20% more than it would require the construction of an equivalent new development at the same area.

However, the result of the conversion surpassed the expectations of the developer company. The redevelopment of the building enabled its historical and architectural value to be revealed. The sense that the building sends off provokes awe to its residents and visitors. Moreover, the facilities provided are equivalent to luxury residential developments. As a consequence, prices have been boosted up. Prices range from 3,500 to

5,000€/m². The developer company aims to sell all the premises. According to the information provided by board members of the firm, the expected profits will probably be greater than those that had been estimated. As it has already been mentioned, the project isn't completed yet, so, at the moment it is impossible to make an accurate financial analysis. Table 4.1 presents the main financial data that have been provided by the developer company. As far as construction costs and revenues from sales are concerned, estimated values have been considered. The last column comments on the differences that would probably emerge if an equivalent residential development was erected.

Undiscounted financial analysis				
Type	Cash flow Inputs	Cash flow Outputs	Balance	Comments
Land/Property acquisition		-3,000,000€		Land price might be greater for the construction of a new development of equal surface
Legal fees for land acquisition		-350,000€		Legal fees would be the same in percentage of the land price in both cases.
Professional fees		-200,000€		The difficulty of conversion schemes increases professional fees
Construction costs		-4,500,000€		A comparable new development would cost less
Interests		-1,000,000€		Since redevelopment schemes last more, interests are greater
VAT		-700,000€		
Expected revenues from sales	+ 15,000,000€			The revenues from sales would be less in case of a new residential development. The outcome+ the risk involved increase prices
	+15,000,000€	-9,750,000€	+5,250,000€	
			Profits of 5,250,000€	Lower profitability for the new development

Table 4. 1: Financial Analysis

However, in terms of this dissertation, it would be more important to contrast the overall constructions costs that require the conversion of a historic building and the construction of a new equivalent residential development at the same area. Taking also into consideration the revenues

from sales in both cases, some conclusions concerning their relative profitability could be drawn. However, such a comparison is impractical to be made for the following reasons. Initially, old structures are usually built with higher plot ratio. Therefore, in order to raise at the same area, a building of equal surface, more land would be required, thus more money probably, as land prices are not fixed. Moreover, nowadays, there are no flats with features similar to those of historic buildings. Indeed, historic buildings are ideal to be converted into lofts, with large spaces and high ceilings. On the other hand, following the market trends, newly built residential developments are more conventional with ceilings that range from 2.70 to 3.30m, and much smaller rooms. Even, developments where the industrial style of lofts is applied such characteristics are not provided for profitability issues.

So, based on the conducted case study, the information provided by real estate agents that operate in the wider area of Thission Lofts and people expert in the field, only the following conclusions listed below can be inferred. However, what should be clarified at this point is that conversion of a listed building differs up to a certain extent to the simply historic buildings. Therefore, some of the following findings refer particularly to listed buildings and can't be generalised.

- ❖ Land costs might be greater for the construction of a new residential development, as new residential developments are designed with lower plot ratio.
- ❖ The conversion of a listed building into a residential unit of high standards can cost up to 20% more than the construction of a new development of the same quality, 1500€/m² and 1200€/m² respectively)
- ❖ The professional fees for the structural and architectural designs required for the redevelopment of an old structure are higher than that of a new development.
- ❖ The selling prices of apartments of renovated listed buildings are greater than those of new conventional developments, 3,800-5,000€/m² and 2,800-3,000€/m² respectively, whereas the

prices of new residential developments with loft style ranges from 3,500-4,000€/m² .

At the moment, the redevelopment of historic buildings consists a trend for the centre of Athens. The renovation of historic buildings is part of a wider regeneration effort that has recently started. All collected data are retrieved from recently completed projects, the number of which right now is limited. So, any other assessments could be risky and incorrect.

4.5 The impact of Thission Lofts to the community

This section intends to reveal how people perceive the contribution of Thission Lofts to the community. Based on the literature review, the impact of such developments is compound. Therefore, interviews and discussions were held with residents of the building and the wider area, businessmen and estate agents that operate in the region, in order to shape an overall point of view.

Based on the interviews that were carried with the residents of Thission Lofts, it was mainly the designs and the architectural style of the lofts that impressed them, and motivated them to move in the building. The inner courtyard of the building, the large spaces and the high ceilings enhance the overall appearance of the building, and the lofts respectively. The porter and the fitness center also add value to the overall impression of the development. What is more, the location of the building was a catalyst for their decision. Living downtown offers access to numerous facilities and easy transportation. So the overall facilities provided compensate for the high selling prices. Moreover, according to the residents, Thission Lofts surpass in general all new residential developments, in quality, design and facilities, even if most lofts are deprived of balconies. Most of the residents are singles and young couples familiar with this new model of living. Lastly, it was a common belief of all residents that the restoration of listed building is a phenomenon that will last. So, buying a loft in the building could be considered as a reliable and profitable investment for the future.

Moreover, residents of the wider area agree that such developments add value to their neighborhood. Until recently, the area was downgraded. The image of the area was repulsing to its visitors and prevented citizens from living there. Furthermore, all these redundant buildings were inviting crime. On the other hand, the overall regeneration effort that has been taking place in the area, has enhanced its appearance and has stimulated the influx of cultural institutions, recreational centers and new residents. The residents of the area are satisfied observing the increase in value of their properties and

the upgrade of their neighborhood. Furthermore, it is also widely believed that the redevelopment of old buildings enables the revival of Old Athens. It is not only the conversion of historic buildings that enhance the appearance of the area, but the creative combination of past elements (historic structures) and modern architecture.

As far as the owners of commercial units are concerned, they couldn't be more excited with this progress. As the area has been turned into a cultural hub and the hotspot of Athenian nightlife, all entrepreneurs in the area run their businesses very successfully, observing their profits launched at unexceptionally high levels.

The overall impression that exists for this development and similar ones is positive. People, on the whole, believe that such restoration schemes add value to the community. However, the only discrepancy, according to the conducted research, derives from the estate agents. There are some agents, who strongly believe that this trend will endure time and consequently property values in the area will steadily be increased. However, there are also agents who claim that this phenomenon is a bubble that is going to burst. The developers, who have prevailed the area, seek for huge profits, while their developments do not offer something more than conventional residential buildings. The prices of these developments are outrageously high for the area. So according to them this trend, will only lasts for a while. Afterall, they do believe that the life quality of the city at the moment is inferior to the living conditions that provide the life in suburbs.

4.6 Summary

This conclusive section entails all differences that emerge in the construction of a new residential development and the conversion of a historic building into residential units.

Initially, historic buildings retain the plot ratio of their previous use, which is higher than the plot ratio of new developments in the center of Athens. Hence, the land costs for the construction of a new development of equal surface are greater. As far as the technical issues are concerned, the conversion of historic developments is usually more complex. Inspecting the structural viability of the existing structure, reinforcing the old development, and updating the building services are time-consuming and complex tasks. Moreover, the nature of historic buildings hinders the co-ordination of all construction activities. Conversely, the structural designs and the construction process in new residential developments are simple following typical procedures. Moreover, the non-uniformity in designs of historic buildings, and the limitations involved in the conversion of listed buildings, complicate and delay architectural designs.

Apart from the restrictions imposed in the redevelopment of listed buildings, authorities are in favor of such projects and promote them, either speeding up the acquirement of planning permission or providing financial incentives. Furthermore, many people perceive redeveloped historic buildings superior to new residential developments. Historic buildings benefit from large spaces and high ceilings in contrast to the majority of new residential developments. Moreover, the sense that historic buildings send off attracts future residents, and enhances the appearance of an area. Thus, redeveloped historic buildings usually command higher selling prices. Lastly, because of the risk involved in such schemes prices are greater.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The aim of this research was to reveal the factors that have made the conversion of historic developments, in the center of Athens, so appealing during the last years. Taking into consideration the currently built and redeveloped residential units in the wider area of Gazi, some issues were enlightened. The case study of Thission Lofts, a listed building of 1920's, shed light into the issues that emerge generally with renovation of historic buildings and of listed ones to be more precise. Moreover, the relative financial costs and benefits of the renovation process, in comparison to the construction of a new residential development, were exposed through the Thission Lofts case study.

According to the findings of this research, the benefits that derive from the conversion of historic buildings are numerous, and affect both individuals and society. First of all, the renovation of old buildings enables the historic, architectural and social value of them to be revealed, enhancing the historic and architectural character of a wider area. It promotes the creation of focal points that attract people and boost up local economies. The renovation of historic buildings speeds up regeneration schemes, but also stimulates the initiation of such projects. Lastly, the conversion of historic buildings consists an environmentally friendly proposal, and promotes sustainable development.

Apart from the benefits being created by the redevelopment of historic buildings to the community, individuals as well derive profits from such projects. As mentioned above, the conversion of historic structures in an area increases inward investments, and consequently more facilities are provided to the residents and to the visitors of the region. Moreover, as the appeal for

an area increases, businesses run more successfully. What is more, the upgrade of an area, increases demand for all kind of residential units, and drives up property values, promoting the benefits of property owners and developers that operate in the region.

Lastly, as far as the relative costs and benefits of converted historic buildings to be used as residences and the newly built residential developments are concerned, the findings are contradictory. It has been evident that the conversion of a historic building is more expensive than the construction of an equivalent new one. Especially, when listed buildings are concerned, the regulations involved impede the structural and architectural designs, and the progress of the redevelopment, augment the required budget. However, historic and listed buildings keep the plot ratio of their previous use, after their conversion. This fact favors the reconstruction of listed buildings, as the contemporary building coefficients are lower than they used to be. Moreover, the inclination many people have towards such developments boosts up selling prices, and make them more profitable. Apart from the various dimensions of the importance of historic buildings, the fact that old structures promote modern architecture to be applied provokes the interest of people for such residential units. Indeed, according to the collected data, the selling prices of converted historic residential developments are greater than the selling prices of comparable new developments.

5.2 Recommendations

Initially, as far as the Greek legislation is concerned it definitely provides incentives to the owners of historic buildings to redevelop their properties. However, what has not been considered is up to which extent these incentives are enough to motivate both individuals and developers towards the conversion of historic buildings and listed ones. This dissertation has only considered the conversion of historic buildings in the center of Athens. In the center of Athens based on the enacted decrees there have been created several conservation areas, and according to the conducted research, redeveloping a historic structure in a conservation area is generally considered profitable and a reliable investment. On the other hand, there are no evidences to prove that the conversion of historic buildings is also economically worthwhile in less central areas, both for developers and individuals. Perhaps, the current regulations aren't appealing enough to promote the conversion of historic buildings in the suburbs. Hence, this issue could be examined further in a future research.

Moreover, this dissertation has focused on the renovation of historic buildings but up to a certain extent, because of the subject of the case study, deals with the conversion of listed historic ones. Therefore, some of the findings of the case study refer exclusively to listed buildings. However, a distinction should be made. It is more appropriate to examine the conversion of simply historic buildings and listed historic ones separately. Historic buildings not defined as listed do not face any restrictions, while they are being redeveloped. This fact can differentiate significantly the overall profitability of such projects and their appeal to the community. In terms of this dissertation, there has been just clarified that there is a distinction between historic and listed buildings, so this comparison could be a subject of future research.

Conclusively, as it has already been mentioned the conversion of historic buildings is a phenomenon, which has recently appeared. Hence, to

meet the demands of this dissertation, only a small sample of completed projects was available to be considered. According to the primary and secondary data gathered, the redevelopment of historic buildings in the center of Athens is desirable. The profitability of such developments is considered to be greater than the respective of new residential ones, both for the individuals and the community. However, the findings of this research will be assessed through time. As this practice is at its introductory stage in Greece, time will eventually show whether this phenomenon is a trend, or it has emerged because people are consciously aware of the benefits of redeveloping historic structures. Therefore, it is considered essential for the whole issue to be evaluated again after a period of time.

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www.if-untitled.com/ (IF[untitled]Architects)

www.minenv.gr(Ministry for Environment, Physical Planning and Public works)

www.preserveamerica.gov/

www.statistics.gr/(National Statistical Service of Greece)

www.thisionlofts.gr/

Appendix I: Interviews

List of Interviewees

- 1) Politis D.**, board Member of Gnomon Constructions S.A,
- 2) Politis K.**, president of Gnomon Constructions S.A, and project manager of Thission Lofts
- 3) Giannakopoulou M.**, member of IF [untitled] Architects, and member of the design team of Thission Lofts
- 4) Athanasiadis A.**, structural engineer of Thission Lofts
- 5) Levedis P.**, architect, and resident of Thission Lofts
- 6) Gika A.**, resident of Thission Lofts
- 7) Rwmas A.**, real estate agent
- 8) Aksarlis A.**, real estate agent
- 9) Chasioti E.**, resident of Gazi
- 10) Sotiropoulos A.**, resident of Gazi, and owner of commercial unit

List of interviews

Questions addressed to board members of the company:

- 1) Why did you decide to convert an old building in the centre of Athens?
Which were the criteria of your decision?
- 2) Did the regeneration of the wider area, and its central location, affect your decision?
- 3) Why did you choose the specific building? Did the historic importance of it affect your decision?
- 4) Was it expensive to buy the land/property? If you had to buy just the land to build a new residential development, would it be more expensive?
- 5) Did the nature of the building cause any problems to the cost-plan analysis?
- 6) Were there any differences in comparison to the cost plan analysis of a new development?
- 7) Did the redevelopment of the building require special professionals to be involved?
- 8) Did you meet any difficulties that do not emerge in new developments?
- 9) Did you face any legal issues with the redevelopment of the building?
- 10) Did you come across any unexpected problems?
- 11) What are your intentions? Do you intend to sell all the premises?
- 12) How was the project financed?
- 13) Do you think that after the entire project was financially worthwhile?
- 14) What are the expected profits?
- 15) Are the expected profits greater than they would be if Thission Lofts were a newly built residential development?
- 16) If you had the chance to demolish the old structure and build it from scratch, what would you do?
- 17) Do you think that the renovation of historic buildings is a phenomenon that is going to last?
- 18) Finally, are you satisfied with the outcome of your decision?

Questions addressed to the engineer of Thission Lofts:

- 1) Did you check the structural viability of the building before the land/ property was bought?
- 2) Was it difficult to inspect its condition?
- 3) What about the overall difficulty of the structural designs?
- 4) Did you have to reinforce the old structure?
- 5) Was the reinforcement of the building difficult? Did it delay the progress of the reconstruction?
- 6) If you had to build the same development from scratch, would it require more or less time? Would it be more or less expensive?
- 7) What's the life span of the building now, after its renovation?
- 8) Did you face any technical problems that hadn't been predicted during the construction process?
- 9) If you did face any unexpected problems, how much did they affect the budget and delivery time of the project?
- 10) Was it difficult to update the building services of the old factory?
- 11) Did the non-uniformity of the building cause any problems?
- 12) Did the limitations involved with the reconstruction of listed buildings provoke any problems?
- 13) Were there any other technical issues that emerged due to the nature of the building?

Questions addressed to one of the architect of Thission Lofts:

- 1) Which were your first thoughts when they proposed you to undertake the conversion of this listed factory?
- 2) How difficult was for the design team to turn an old factory into residential units?
- 3) Did the former function of the building cause any problems?
- 4) Did the limitations involved with the restoration of listed buildings cause any problems that complicated the architectural designs?
- 5) Was it too difficult to retain and reveal the historic and architectural importance of the building?
- 6) Although there were numerous limitations in this project, was there room for any innovation?
- 7) Which factors obstructed or benefited the architectural designs of the building?
- 8) Did you encounter any issues with the planning permission?
- 9) Taking into consideration a new equivalent residential development of the same size, which project is more difficult and time consuming for an architect?
- 10) How do you feel about the result?
- 11) What is special about Thission Lofts?
- 12) Do you believe that Athenian citizens can appreciate what Thission Lofts offer to its residents and the whole community?
- 13) What is your opinion about the conversion of listed buildings into residential developments?
- 14) Do you believe that the phenomenon that has emerged nowadays is a trend or is it going to last?
- 15) Did you benefit somehow from the nature of the building?

Questions addressed to the project manager of Thission Lofts:

- 1) In general, was it difficult to co-ordinate all construction activities required?
- 2) Did you face any problems difficult to be handled during the construction process?
- 3) Did the followed procedure was similar to the procedure followed in the construction of new residential developments?
- 4) What was the main difference in the construction process comparing these two cases?
- 5) Did the non-uniformity of the old structure provoke any problems?
- 6) Did the fact that no vehicle could entry the site brought about any problems?
- 7) Where there any other issues that benefit or obstruct your work?
- 8) Comparing with a construction of a new residential development, your work was more or less complicated, and time consuming?

Questions addressed to the residents of Thission Lofts:

- 1) Why did you buy this apartment? Which were the criteria of your decision?
- 2) The prices of this development are quite high in comparison to other new residential developments, either in the center of Athens or in the suburbs? Did this factor affect your decision?
- 3) Do you think that this converted historic building surpass any similar newly built residential developments?
- 4) What's so special about this residential development?
- 5) Do this building and similar ones present any drawbacks?
- 6) Are you familiar with this new model of living that Thission Lofts offer?
- 7) Do you believe that loft style apartments address to all people?
- 8) Are they compatible with the lifestyle of modern Athenians?
- 9) Do you believe that the renovation of the building enabled the historic and architectural importance of the old structure to be revealed?
- 10) Why do you think that such a trend has emerged? Who benefits the most? Developers, residents or the community?
- 11) Do you think that the renovation of historic buildings is a phenomenon that is going to last?
- 12) Finally, are the selling prices of such residential developments logical based on what they provide?

Questions addressed to the residents of the wider area:

- 1) The area in which you live is on the threshold of a wider regeneration. How do you feel about that?
- 2) Many redundant listed buildings are being turned into residential developments? Are you in favor or against that phenomenon?
- 3) Do you believe that this phenomenon is a trend or it is going to last?
- 4) The old factory of Pireos has now been turned into luxurious lofts, named Thission Lofts. What is your opinion about this project?
- 5) Do Lofts propose a new model of living? Do you think that Athenians are keen with this living style?
- 6) Does this living style fit the area?
- 7) Do you believe that the conversion of the old building enabled its architectural and historical importance to be revealed?
- 8) Does the wider community benefit from this project and other similar?
- 9) What is the impact of such projects to the wider area?
- 10) Do you think that such projects will promote the upgrade of the area?
- 11) Is there any space for the redevelopment of historic buildings? Are people in favor of such developments or do they just prefer new ones?
- 12) Finally, who do you think benefits the most from such projects? Their developers, their residents, or the whole community?

Questions addressed to the real estate agents:

- 1) What do you believe about Thission Lofts?
- 2) It is the first residential development with loft style apartments in Athens. Based on the overall appearance and style of the building, do you think it was a successful project? Does it meet the requirements of lofts?
- 3) Are there any new residential developments equivalent to this one?
- 4) Are Athenians familiar with this new model of living?
- 5) Why the last years there is a tendency towards the restoration of old developments?
- 6) Are historic buildings and listed buildings suitable for residential developments?
- 7) What are the benefits that such developments provide in comparison to new ones? Why there are people who prefer to buy an apartment in a converted historic building rather than in a new development?
- 8) Selling prices of apartments in renovated historic buildings are higher than comparable apartments of newly built residential developments? Is this normal?
- 9) The local market seems to be very boosted. Do you think that this is a phenomenon that is going to last?
- 10) Do you believe that this trend with the conversion of historic buildings into residential units will endure time?

Appendix II: Architectural designs and images of Thission Lofts

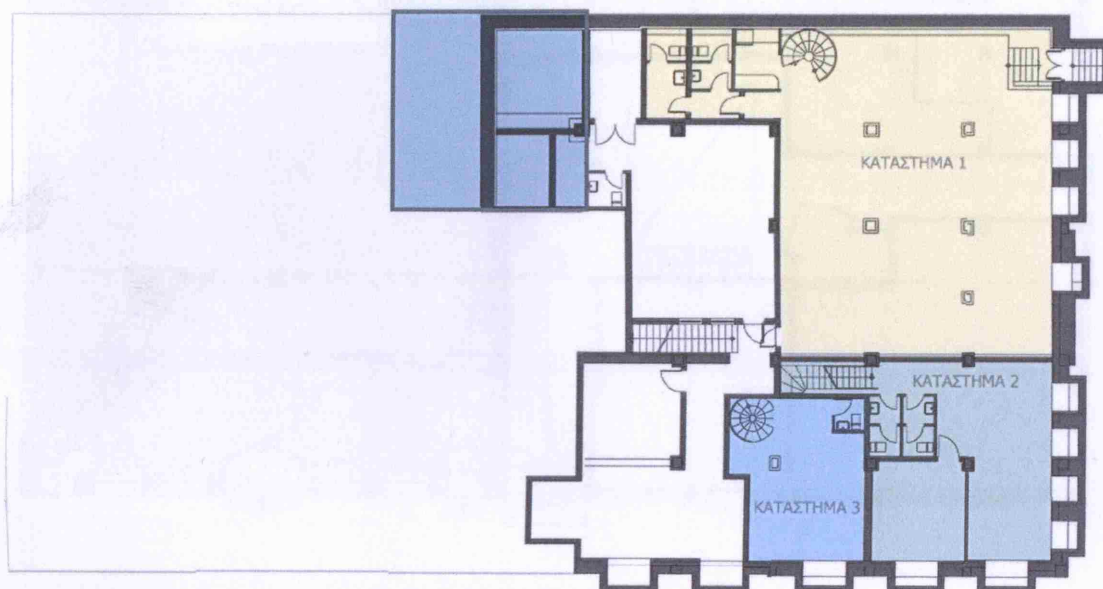


Figure A.1: Lower ground floor
(www.thissionlofts.gr/ accessed 10 August 2008)



Figure A.2: Ground floor plan(+0.00m)
(www.thissionlofts.gr/ accessed 10 August 2008)

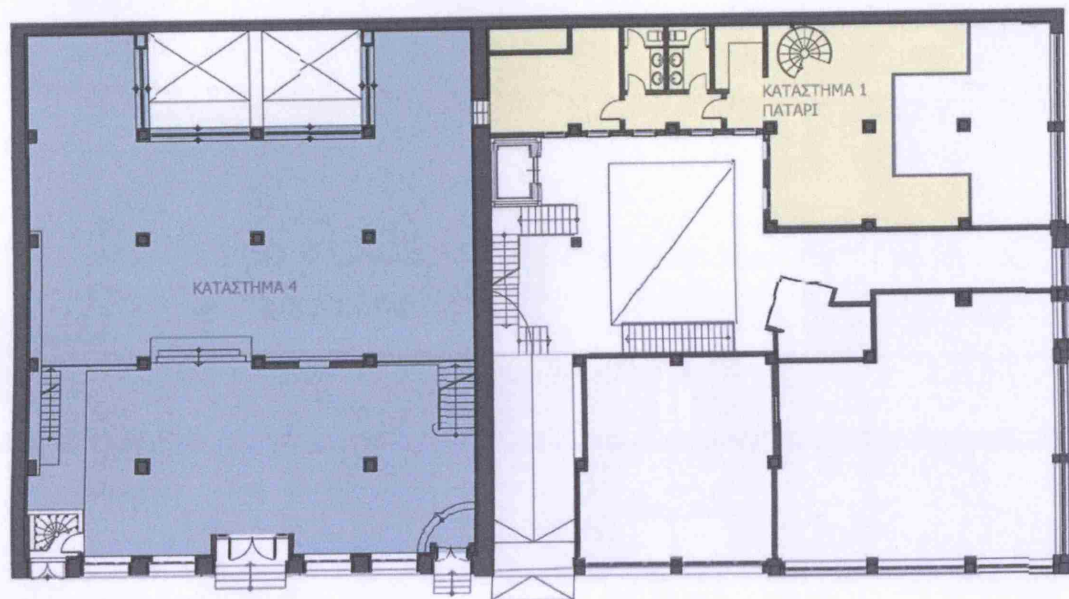


Figure A.3: Ground floor plan (+3.20m)
(www.thissionlofts.gr/ accessed 10 August 2008)

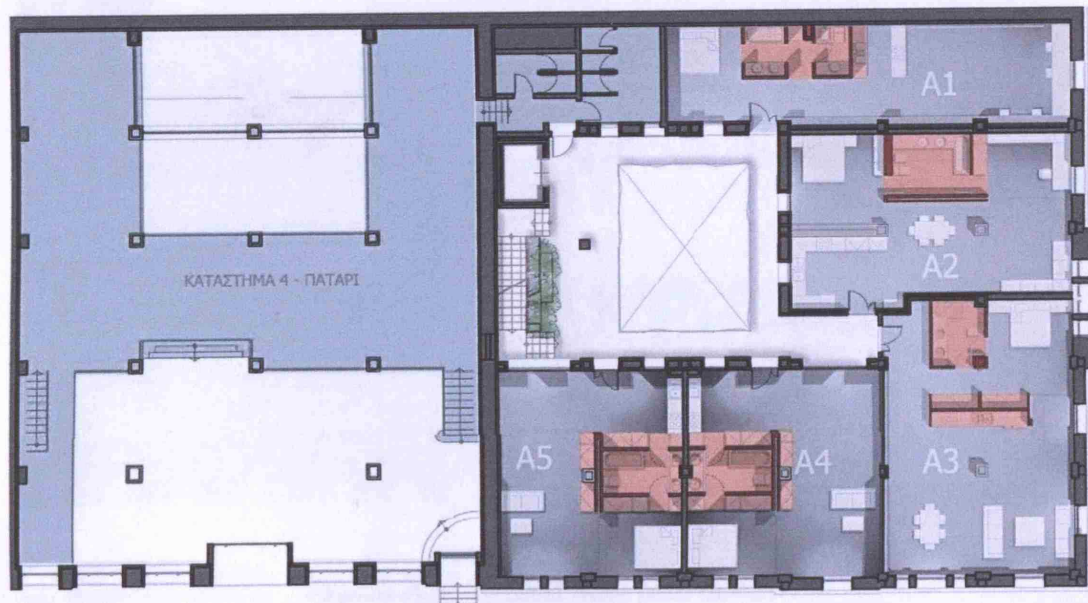


Figure A.4: First floor plan
(www.thissionlofts.gr/ accessed 10 August 2008)



Figure A.5: Second floor plan
(www.thissionlofts.gr/ accessed 10 August 2008)

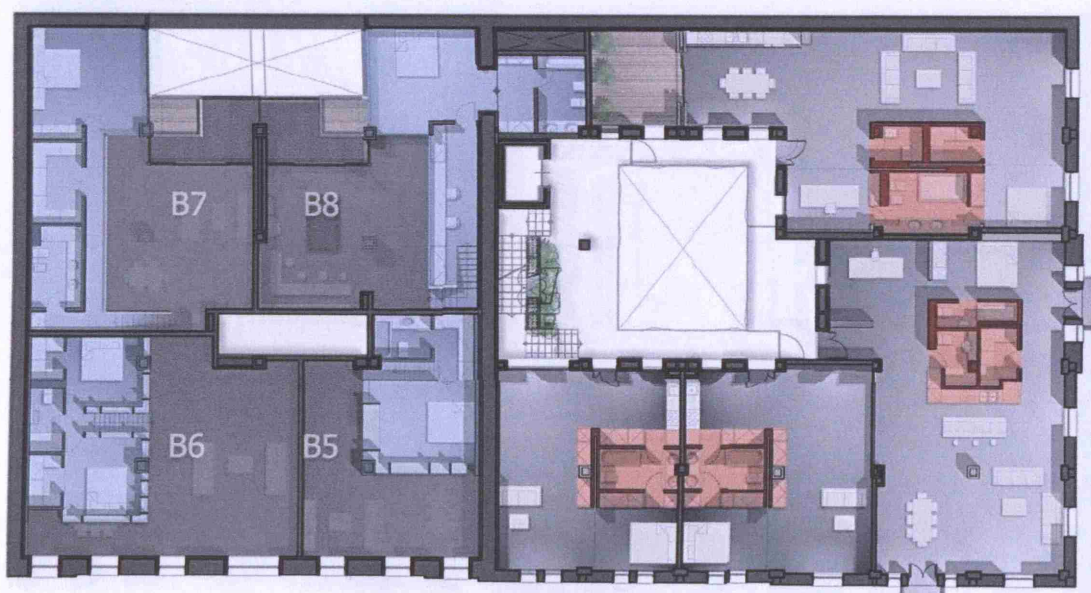


Figure A.6: Second floor plan (lofts)
(www.thissionlofts.gr/ accessed 10 August 2008)



Figure A.7: Third floor plan
(www.thissionlofts.gr/ accessed 10 August 2008)



Figure A.8: Third floor plan (lofts)
(www.thissionlofts.gr/ accessed 10 August 2008)



Figure A.9: Prospective view of the building
 (www.thisissionlofts.gr, accessed 10 August 2008)



Figure A.10: View of the building



Figure A.11: Elevation(Euristheos Av.)
(www.thissionlofts.gr/ accessed 10 August 2008)



Figure A.12: Elevation(Euristheos Av.)
(www.thissionlofts.gr/ accessed 10 August 2008)